

CHEMICAL GENOMICS CORE FACILITY

Lan Chen, Li Wu, Andrea Gunawan and Zhong-Yin Zhang

*Department of Biochemistry and Molecular Biology, Indiana University School of Medicine,
Indianapolis, Indiana*

Email: lanchen@iu.edu

The Chemical Genomics Core Facility (CGCF) is a shared facility of the IU Simon Cancer Center and IU School of Medicine. The mission of CGCF is to provide excellence and innovation in high throughput screening (HTS) and medicinal chemistry. The core is fully equipped for automated high throughput screening and modern chemical synthesis. We have a series of state-of-art liquid handling robots, a variety of plate readers capable of measuring absorbance, fluorescence, fluorescence polarization, luminescence, time-resolved fluorescence and AlphaLISA. We have recently acquired a high content analysis (HCA or HCS) platform, which greatly enhanced our capability in image based cellular assays. Facility for chemical synthesis includes different HPLCs, LC-MS, NMR, flushing column systems, peptide synthesizer and microwave reactor. Our compound collection is about 230,000 including structurally diverse, pharmacophore-rich drug-like compounds, known drugs and bioactives, natural products and their derivatives. As the first core facility of its kind to be established in an academic setting in Indiana, we have a proven record of providing screening expertise and synthetic service to researchers across Indiana and beyond. This shared facility enables investigators to discover small molecule tools for basic research, therapeutic development and diagnostic applications. The CGCF has been designed to be highly flexible in order to meet the needs of multiple users employing a range of assays. Facility staff works closely with each investigator through all stages of the drug discovery process, providing an opportunity for students and fellows to gain experience and training in high throughput screening and medicinal chemistry at the facility.

Abstracts from students and postdoctoral fellows will be selected by a Committee for a 12 min oral presentation plus 3 min discussion. Please indicate below if you wish to be considered for the oral presentation. Note that checking the oral presentation box is no guarantee of selection.

☐ poster presentation

☐ oral presentation

☐ graduate student

☐ post-doctoral fellow

☒ faculty (not eligible for oral presentation or prize)

☐ staff (not eligible for oral presentation or prize)